# Working Together Towards Scale

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# Interactive Discussion Topics

- Challenges to scale and potential solutions

- Potential business and collaboration models

# Need for Additional FHIR APIs

- Examples:
  - Gestational age
  - Phototherapy administration times
  - Encounters
  - Encounter diagnoses
  - Searching for medications from a time range
  - Write APIs

- Potential solution
  - HSPC and CIMI (with strong vendor engagement) defines FHIR resource and profile APIs
  - Organizations develop conformant APIs for EHRs, then shares/licenses

# Lack of Specificity in APIs

- US Core FHIR profiles a good start, but insufficient

- Examples:
  - Medication route, family history condition
  - Whether outpatient meds should be accessible when hospitalized
  - Dates can be anything – e.g., "2018"

- Potential solutions:
  - HSPC and CIMI (with strong vendor engagement) defines FHIR profile APIs
  - Organizations develop conformant APIs for EHRs, then shares/licenses
  - Collaborate in improving US Core FHIR profiles
  - Role of Argonauts?

# Differences in Vendor Implementation of Standards

- An expected side effect of insufficiently specific APIs

- Makes solutions built on those APIs difficult to scale

- Examples:
  - How to indicate a prescription used free text?
  - Do prescriptions always have a start date?
  - Search parameters/approaches are different across vendors

- Potential solutions:
  - Same as for improving specificity of APIs – collaborate on definition and implementation of detailed APIs
  - Conformance testing

# Need for Local Data Mapping

- A consequence of source data being captured using EHR or organization-specific codes

- Examples:
  - Lab results
  - Structured documentation

- Difficult to get requisite expertise and resources to get it right

- Potential solutions:
  - Short term: mapping tools and processes
  - Long term: mapping to standard codes at point of system design
  - Potential role of SOLOR terminologies – SNOMED CT, LOINC, RxNorm

# SMART and CDS Hooks Security

- Very coarse-grained

- Gives pause to solutions that require going outside firewall

- Examples:
  - To share gender, must share name, address, phone, medical record number, etc.
  - To share patient weight, must share all observations, including (if available) STD test results

- Potential solutions:
  - Short term: hosting behind firewall
  - Long term: finer-grained access control

# App Fatigue

- Dozens of apps, different styles, unsure when to use

- Potential solutions:
  - Cross-industry style guide
  - Broader-scope apps (e.g., a medical calculator app vs. one for each individual calculator)
  - CDS Hooks and other context-aware approaches to suggest apps

# Inter-Institutional Collaboration Doesn't Naturally Happen

- Examples:
  - API specification and implementation
  - App development

- Probably the biggest challenge

- Going it alone is our default approach to working

- Potential solutions:
  - Let's discuss! (mission of HSPC)
  - What would make you want to collaborate next week with the people you are sitting next to today?

# Other Challenges and Solutions?

- Learning curve

- Resourcing

- ROI

- Multiple versions/flavors of FHIR

# Thank You!